

REMARKS

Initially, Applicants would like to express their appreciation to the Examiner for the detailed Official Action provided, for the indication that the drawings filed on May 4, 2001 are acceptable, for the acknowledgment of Applicants' Information Disclosure Statement by return of the Form PTO-1449, and for the acknowledgment of Applicants' Claim for Priority and receipt of the certified copies of the priority documents in the Official Action.

Upon entry of the above amendments, the specification will have been amended, claims 2, 11, 13, 14, 18-20, 22 and 29 will have been amended, and claims 1 and 15 will have been canceled. Claims 2-14 and 16-37 are currently pending. Claims 22-37 have been withdrawn from consideration by the Examiner. Applicants respectfully request reconsideration of the outstanding objections and rejections, and allowance of all the claims pending in the present application.

On page 3 of the Official Action, the specification was objected to as containing minor informalities. The specification has been amended to incorporate the Examiner's suggestions. Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection to the specification.

On pages 3 and 4 of the Official Action, claims 11, 13 and 14 were rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim

the subject matter which applicants regard as the invention. Claims 11, 13 and 14 have been amended to address the issues raised by the Examiner. Specifically, claim 11 has been amended to recite "a chemical", and claims 13 and 14 have been amended to recite "that of the inner layer or the intermediate layer". Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. § 112, second paragraph.

On pages 2 and 3 of the Official Action, claims 6 and 7 were provisionally rejected under the judicially created doctrine of "obviousness-type" double patenting over claim 10 of Application No. 09/942,720. The Examiner takes the position that claims 6 and 7 of the present application are merely broader than claim 10 of Application No. 09/942,720, and that claim 10 of Application No. 09/942,720 recites all of the limitations of these claims.

Applicants respectfully traverse the provisional rejection under "obviousness-type" double patenting. As an initial matter, Applicants note that the Examiner has failed to state any reason as to why removal of any of the limitations of the system set forth in claim 10 of Application No. 09/942,720 would have been obvious to one of ordinary skill in the art. Therefore, because the Examiner has provided no motivation for removal of limitations from the system, such as the relative melting points recited in claim 1 of Application No. 09/942,720, from which claim 10 depends, the rejection under

"obviousness-type" double patenting is improper on its face.

Further, Applicants submit that, contrary to the Examiner's contention, claim 10 of Application No. 09/942,720 does not recite all of the limitations of claims 6 and 7 of the present application. In this regard, Applicants note that claim 10 of Application No. 09/942,720 does not require "at least part of the coating is fused with and bonded to the inner layer of the outer cover" as recited in claim 6 of the present application. Furthermore, Applicants note that claims 6 and 7 each include the limitations of claims 2, 3 and 4 from which they ultimately depend. Applicants also note that claim 10 of Application No. 09/942,720 lacks the following limitation recited in claim 2 of the present application: "wherein the intermediate layer of the outer cover has a higher elasticity than the inner and outer layers so that the intermediate layer functions as cushioning between the inner layer and the outer layer". Applicants further note that claim 10 of Application No. 09/942,720 lacks the following limitation recited in claim 3 of the present application: "wherein the core body has a plurality of holes and/or a plurality of recesses". Therefore, because claim 10 of Application No. 09/942,720 does not recite all of the limitations of claims 6 and 7 of the present application, and because the Examiner has provided no reasoned statement as to why the inclusion of the above-noted limitations would have been obvious to one of ordinary skill in the art, the rejection under "obviousness-type" double patenting is improper.

Accordingly, for all of the above-noted reasons, Applicants respectfully request reconsideration and withdrawal of the provisional rejection under "obviousness-type" double patenting.

On pages 4 and 5 of the Official Action, claims 1-5 and 8-21 were rejected under 35 U.S.C. § 102(e) as being anticipated by SUGIYAMA et al. (U.S. Patent No. 6,485,075).

Applicants respectfully traverse the rejection of claims 1-5 and 8-21 under 35 U.S.C. § 102(e).

Applicants note that claim 2 has been rewritten in independent form by including the subject matter of previous claim 1 therein. Further, claim 2 has also been amended to include the subject matter of previous claim 15 regarding the intermediate layer functioning as cushioning between the inner layer and the outer layer, as well as reciting that the intermediate layer has a higher elasticity than the inner and outer layers. Claims 1 and 15 have been canceled, and all of the remaining rejected dependent claims depend ultimately from claim 2.

Claim 2, as amended, includes, inter alia, "wherein the intermediate layer of the outer cover has a higher elasticity than the inner and outer layers so that the intermediate layer functions as cushioning between the inner layer and the outer layer." Applicants submit that SUGIYAMA et al. lacks any disclosure of an intermediate layer of an outer

cover that *has a higher elasticity* than inner and outer layers of the outer cover, so that the intermediate layer *functions as cushioning* between the inner layer and the outer layer.

Applicants submits that SUGIYAMA et al. only discloses an inner layer 30A and an outer layer 30B (note Fig. 5), and that 30C merely indicates an interface area between these two layers in which they are mixed when extruded together in a molten state (note Figs. 2, 3, 7, 8, the Abstract, and column 3, lines 38-46). As explained in SUGIYAMA et al., Figs. 1 and 6 merely depict interface area 30C to show the mixing of the material  $\square$  of inner layer 30A and material  $\Delta$  of outer layer 30B. Therefore, Applicants submit that interface area 30C of SUGIYAMA et al. can not fairly be characterized as an intermediate layer.

Further, Applicants submit that even if the interface area 30C were to be improperly characterized as an intermediate layer, there is no disclosure in SUGIYAMA et al. that this area *has a higher elasticity* than inner layer 30A and outer layer 30B, nor that the this area *functions as cushioning* between inner layer 30A and outer layer 30B. This is particularly the case since, as discussed above, interface area 30C is disclosed as merely including a mixture of the material  $\square$  of inner layer 30A and material  $\Delta$  of outer layer 30B.

Applicants also submit that dependent claims 3-5, 8-14 and 16-21, which are at least patentable due to their dependency from claim 2 for the reasons noted above, recite

additional features of the invention and are also separately patentable over the prior art of record.

Accordingly, Applicants submit that the rejection of claim 2-5, 8-14 and 16-21 under 35 U.S.C. § 102(e) is improper for all of the above reasons. Applicants respectfully request reconsideration and withdrawal of the rejection, and an early indication of allowance of these claims.

On pages 5 and 6 of the Official Action, claims 1-4, 8-10, 16, 20 and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by KATSURADA et al. (U.S. Patent No. 5,217,002); claims 1-4, 8-11, 16-18, 20 and 21 were rejected under 35 U.S.C. § 102(b) as being anticipated by MORISHITA (U.S. Patent No. 4,753,222); and claims 1-4, 8 and 18 were rejected under 35 U.S.C. § 102(e) as being anticipated by STRONG (U.S. Patent No. 6,083,152).

Applicants respectfully traverse these rejections under 35 U.S.C. § 102. Applicants note that these rejections appear to be moot with respect to amended claim 2, which includes the subject matter of previous claim 15 (which was not listed in these rejections). Thus, the Examiner appears to acknowledge that none of these documents discloses an intermediate layer that functions as cushioning between an inner layer and an outer layer. Applicants submit that none of these documents disclose an intermediate layer of an outer cover that *has a higher elasticity* than inner and outer layers of the outer

cover, so that the intermediate layer *functions as cushioning* between the inner layer and the outer layer.

Accordingly, Applicants submit that these rejections under 35 U.S.C. § 102 are improper for all of the above reasons. Applicants respectfully request reconsideration and withdrawal of these rejections, and an early indication of allowance of these claims.

On pages 6 and 7 of the Official Action, claims 6 and 7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over MORISHITA (U.S. Patent No. 4,753,222) in view of IWASAKA (U.S. Patent No. 5,885,207).

Applicants respectfully traverse the rejection under 35 U.S.C. § 103(a). Initially, Applicants submits that the teachings of IWASAKA do not cure the above noted deficiencies in the teachings of MORISHITA. Further, Applicants submit that dependent claims 6 and 7, which are at least patentable due to their dependency from claim 2 for the reasons noted above, recite additional features of the invention and are also separately patentable over the prior art of record.

Accordingly, Applicants submit that the rejection of claims 6 and 7 under 35 U.S.C. § 103(a) is improper for all of the above reasons. Applicants respectfully request reconsideration and withdrawal of this rejection, and an early indication of allowance of these claims.

## SUMMARY AND CONCLUSION

Entry and consideration of the present amendment, reconsideration of the outstanding Official Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate.

Applicants have made a sincere effort to place the present application in condition for allowance and believe that they have now done so.

Any amendments to the claims that have been made in this amendment, which do not narrow the scope of the claims, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered cosmetic in nature, and to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should there be any questions or comments, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
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**MARKED UP COPY OF AMENDED SPECIFICATION**

The paragraph bridging pages 1 and 2:

--- In endoscopic examination, the flexible tube for an endoscope is inserted along the body cavity to a deep part such as the stomach, duodenum, small intestine, and large intestine. In order to perform the inserting operation easily and reliably, it is necessary for the flexible tube that a push-in force applied to the proximal end (side closer to the operator) of the flexible tube is fully transmitted to its distal end. However, if [bucking] buckling occurs in the flexible tube, the push-in force can not be fully transmitted to the distal end because the push-in force is partially absorbed by the bent part where the buckling occurs. This means that such a flexible tube for an endoscope can not achieve reliable inserting operation. In order to avoid the occurrence of such buckling, it is necessary for the flexible tube to have sufficient flexibility so that bending is hard to occur. Further, the outer cover must be firmly attached or bonded to the tubular core since buckling is liable to occur at areas where the outer cover is peeled off from the tubular core. ---

The first full paragraph on page 2:

--- Furthermore, in order to perform the inserting operation reliably, it is also necessary for the flexible tube that a rotational force (that is, a twist) applied to the proximal end thereof is fully transmitted to the distal end thereof. In other [word] words, a flexible tube for an endoscope is also required to have satisfactory rotational followability. ---

**MARKED UP COPY OF AMENDED CLAIMS**

2. (Once Amended) [The flexible tube as claimed in Claim 1, wherein] A flexible tube for an endoscope, comprising:  
an elongated tubular core body; and  
an outer cover which is provided over the core body, the outer cover having a  
portion which is formed into a laminate structure composed of at least three layers, the  
layers of the laminate structure [include] including an inner layer, an outer layer and at  
least one intermediate layer formed between the inner layer and the outer layer, wherein  
the intermediate layer of the outer cover has a higher elasticity than the inner and outer  
layers so that the intermediate layer functions as cushioning between the inner layer and  
the outer layer.

11. (Once Amended) The flexible tube as claimed in Claim 2, wherein the outer layer of the outer cover contains a material having resistance to a chemical.

13. (Once Amended) The flexible tube as claimed in Claim 2, wherein the outer layer of the outer cover is formed of a material having higher hardness than that of [any one of] the inner layer or the [and] intermediate layer [layers].

14. (Once Amended) The flexible tube as claimed in Claim 2, wherein at least a part of the outer layer of the outer cover has higher hardness than that of [any of] the inner layer or the [and] intermediate layer [layers].

18. (Once Amended) The flexible tube as claimed in Claim [1] 2, wherein the outer cover is provided over the core body through an extrusion molding process.

19. (Once Amended) The flexible tube as claimed in Claim [1] 2, wherein the flexible tube has tip and base ends, and flexibility of the flexible tube increases in a gradual or stepwise manner along the direction from the base end toward the tip end.

20. (Once Amended) The flexible tube as claimed in Claim [1] 2, wherein any one of the layers constituting the portion of the laminate structure of the outer cover is different from one of the other layers in its physical property and/or chemical property.

22. (Once Amended) The flexible tube as claimed in Claim [1] 2, wherein at least one of the layers constituting the portion of the laminate structure has a thickness-varying region where the thickness of the layer varies in its longitudinal direction.

29. (Once Amended) The flexible tube as claimed in Claim [1] 2, wherein at least one of the layers constituting the portion of the laminate structure has at least two regions and at least one boundary part along its longitudinal direction, and one of the regions is contiguous to the other region through the boundary part, in which one of the regions is different from the other regions adjacent thereto in its physical property and/or chemical property.